

IN THE CLAIMS

The status of each claim is provided below.

Claims 1-22: Canceled.

23. (New) An assay method for detecting anti-*Treponema pallidum* antibodies in a sample, comprising:

reacting with said sample a *Treponema pallidum* fused antigen, wherein the fused antigen consists of a plurality of surface antigens of *Treponema pallidum*, wherein said surface antigens include at least one antigen selected from the group consisting of 15-kilodalton surface antigen of *Treponema pallidum*, 17-kilodalton surface antigen of *Treponema pallidum*, and 47-kilodalton surface antigen of *Treponema pallidum*; and detecting the reaction of said fused antigen with said antibodies.

24. (New) The method of claim 23, wherein the fused antigen consists of two amino acid sequences, each constituting a surface antigen of *Treponema pallidum* selected from the group consisting of the 15-kilodalton surface antigen and the 17-kilodalton surface antigen,

wherein the 15-kilodalton antigen is amino terminal to the 17-kilodalton antigen, or the 17-kilodalton antigen is amino terminal to the 15-kilodalton antigen.

25. (New) The method of claim 23, wherein the fused antigen consists of two amino acid sequences, each constituting a surface antigen of *Treponema pallidum* selected from the group consisting of the 15-kilodalton and the 47-kilodalton antigen,

wherein a 15-kilodalton antigen is amino terminal to the 47-kilodalton antigen, or the 47-kilodalton antigen is amino terminal to the 15-kilodalton antigen.

26. (New) The method of claim 23, wherein the fused antigen consists of two amino acid sequences, each constituting a surface antigen of *Treponema pallidum* selected from the group consisting of the 17-kilodalton and the 47-kilodalton antigen,

wherein a 17-kilodalton antigen is amino terminal to the 47-kilodalton antigen, or the 47-kilodalton antigen is amino terminal to the 17-kilodalton antigen.

27. (New) The method of claim 23, wherein the fused antigen consists of two amino acid sequences, each constituting 15-kilodalton antigen.

28. (New) The method of claim 23, wherein the fused antigen consists of two amino acid sequences which are 15-kilodalton surface antigen of *Treponema pallidum*, 17-kilodalton surface antigen of *Treponema pallidum*, and 47-kilodalton surface antigen of *Treponema pallidum*.

29. (New) The method of claim 23, wherein the fused antigen consists of four amino acid sequences which may be the same or different, each constituting a surface antigen or *Treponema pallidum* selected from the group consisting of the 15-kilodalton antigen, the 17-kilodalton antigen, and the 47-kilodalton antigen.

30. (New) The method of claim 23, which includes at least two surface antigens selected from the group consisting of 15-kilodalton surface antigen of *Treponema pallidum*, and 47-kilodalton surface antigen of *Treponema pallidum*, said at least two surface antigens of *Treponema pallidum* being the same or different.

31. (New) The method of claim 23, wherein said fused antigen is bound to a carrier.
32. (New) The method of claim 31, wherein said carrier is selected from the group consisting of latex particles, gelatin particles, and magnetic particles.
33. (New) The method of claim 23, further comprising measuring the amount of said antibodies in said sample.
34. (New) The method of claim 23, wherein said detecting is accomplished by agglutination.
35. (New) The method of claim 23, wherein the reaction of said fused antigen with said antibodies is detected with an antihuman immunoglobulin labeled with an enzyme.
36. (New) The method of claim 35, wherein said enzyme is peroxidase.

SUPPORT FOR THE AMENDMENTS

Newly-added Claims 23-36 are supported by the specification at pages 5-70 and by original Claims 1-18. No new matter is believed to have been added to this application by the amendments submitted above